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ABSTRACT

A study analyzed responses of 20 children with and without language impairment to two narrative genres, oral narratives and emergent readings, elicited in the children's homes. Subjects were 2-to 4-year-old preschool children from the metropolitan area of a mid-sized midwestern city: 10 children with specific language impairment (SLI) and 10 with typically developing language (TD). Analyses compared macrostructural and microstructural variables produced in these two contexts and identified features providing insight into the language and emergent literacy development of children with language impairment. Comparative analyses of the two narrative genres revealed that children with and without language impairment were able to produce both narrative genres, that emergent readings were longer than oral narratives, and that children had a greater incidence of "reported speech" (dialogue carriers and direct quotation) during emergent readings. Analyses of group differences revealed that children developing typically used reported speech significantly more often than children with SLI during emergent readings, but there was no reported speech during oral narrative productions for either group. (Contains 3 tables of data and 53 references.) (Author/CR)

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Running Head: ORAL NARRATIVES AND EMERGENT READINGS

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Oral narratives and emergent bookreadings of typically developing and language impaired children.

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Abstract

The present study analyzes responses of 20 children with and without language impairment to two narrative genres, oral narratives and emergent readings, elicited in the children's homes. Analyses compared macrostructural and microstructural variables produced in these two contexts and identified features providing insight into the language and emergent literacy development of children with language impairment. Comparative analyses of the two narrative genres revealed that children with and without language impairment were able to produce both narrative genres, that emergent readings were longer than oral narratives, and that children had a greater incidence of "reported speech" (dialogue carriers and direct quotation) during emergent readings. Analyses of group differences revealed that children developing typically used reported speech significantly more often than children with SLI during emergent readings, but there was no reported speech during oral narrative productions for either group.

Oral narratives and emergent bookreadings of typically developing and language impaired children.

Experts have examined children's narratives and narrative development across many different disciplines including linguistics, speech-language pathology, psychology, psychotherapy, anthropology, early child development, history, sociology, religion, and education. This broad literature makes an interdisciplinary approach desirable since perspectives across disciplines vary in emphasis and orientation. This paper represents the collaborative effort of two researchers considering children's narrative abilities from two different perspectives, speech-language pathology and emergent literacy. Emergent literacy is defined as the literacy behaviors and concepts of young children that precede and develop into conventional literacy (Sulzby, 1985a). This study compares the narrative performance of two groups of preschoolers, those with language impairment and those developing typically, across two narrative contexts. The comparison of the two narrative genres, emergent readings and oral narratives, offers a set of contrastive possibilities for researchers working across different fields. One recurring linguistically oriented issue in emergent literacy research has been whether and in what ways preschool children make distinctions between oral and written language situations and registers (Hyon & Sulzby, 1994; Sulzby, 1986; Sulzby & Zecker, 1991). Researchers in the field of speech-language pathology are interested in how children with language impairments produce narratives under varying contextual demands.

The exploration of narrative performances for children with communication impairment has also been motivated by research demonstrating that narrative ability is one of the best predictors of school success for children with language impairment and learning disability (LD) (Bishop & Edmundson, 1987; Feagans & Appelbaum, 1986). The relationship between academic success and narrative ability has been further amplified by data demonstrating that children with LD show persistent difficulties over time in narrative production (Feagans & Short, 1984). Other research documenting this link includes Roth and Spekman's (1986) data demonstrating that school-aged children with LD have difficulty with several aspects of spontaneous story generation including story grammar development (macrostructure) and that good and poor readers of school-age differed in their use cohesive ties, a microstructural component of effective narratives (Norris & Bruning, 1986). Indeed, narrative microstructural variables (e.g., grammatical sentence

Indeed, narrative microstructural variables (e.g., grammatical sentence structure, frequency and length of subordinate clauses and textual cohesion) appeared to be the strongest variables in predicting group membership in Liles, Duffy, Merritt, and Purcell's (1995) factor analyses of school-aged children with language impairment.

This work has established the relationship between oral narrative performance and school success for older children with language impairment. There is, however, much less information about the development of narrative performance in preschool children with language impairment, although important work in this area has begun (McCabe & Rollins, 1994; Paul & Smith, 1993). It is particularly important to examine genre-specific narrative structure produced by preschool children with language impairment, as data across contexts may clarify understandings of higher order language and cognitive deficits (Liles, 1993).

Researchers of preschool narratives have emphasized the strong link between oral narrative development and emergent literacy development (Dickinson & McCabe, 1991; McCabe & Rollins, 1994). Reciprocally, researchers in emergent literacy have been strongly influenced by oral language development theory--theory that suggests that literacy development like oral language development is a hypothesis-testing process in which children are active participants. In fact, the relationship between oral language and written language development has been further integrated in that Sulzby (1985a, 1994) has suggested restrictive distinctions between speech and oral language and writing and written language should be challenged. Sulzby's work, along with that of others (see Cox, Fang & Otto, 1997; Sulzby & Teale, 1991) challenges the belief that children learn to read long after they learn to speak. Instead, research suggests that the two processes, learning to speak and learning to read, are reciprocal and co-occur in a related fashion and children demonstrate their developing knowledge of written language in their oral communication (Sulzby, 1985a, 1994).

In the effort to understand links between oral and written language development, researchers in emergent literacy have made use of a particular narrative form called an "emergent storybook reading." An emergent storybook reading is elicited when a non conventionally reading child is asked to read from a familiar storybook and the speech produced is analyzed for features of written language. This narrative genre has been a particularly helpful

technique in understanding the way children differentiate and use oral and literate strategies.

Elaborating the concept of spoken language that is "oral-language like" as contrasted with spoken language that is "written-language like" will help explicate the nature of these emergent readings. Halliday (1978; Halliday & Hasan, 1989) described the oral/written variation as the use of oral or literate "registers" and a child's ability to move between registers in response to contextual demands as "code switching." Sulzby (1985a, 1994) recorded features of this code switching in her documentation of 11 different levels of emergent reading of often-read or favorite storybooks. Her findings showed that children's emergent readings of familiar storybooks moved developmentally from very contextualized oral productions (as an example a child might produce the utterance, "Oh, look-it, look-it, he's finding it!") to productions indicating comprehension of and the ability to use many features of the written language register. The written register has been described as being "decontextualized," or providing the contextual information within the wording of the discourse through devices such as initial introduction of characters or objects through names and specific nouns or introducing speech as direct quotation clarified through dialogue carriers.

Even children with language impairment are capable of demonstrating knowledge of the written language register (Kaderavek & Sulzby, in press; Sulzby & Kaderavek, 1996). For example, one subject with language impairment, age 3 years 2 months, uttered the sentence, "'I'm going nuts,' he said." The child produced this sentence during an emergent reading in response to a page in which the text read, "'I'm going voling for nuts,' Sam told Mother" (from Sam Vole and his brothers, Waddel & Firth, 1992). In this example, the child's productions of direct quotation and dialogue carrier, were evidence of written language knowledge. This example, as well as Sulzby's research (1985a, 1994), demonstrates that children's emergent readings can demonstrate internalization of written language characteristics and are not merely memorized renditions of the book's text.

As a child becomes increasing familiar with and internalizes characteristics of the written language register, he or she begins to use certain linguistic features. Besides the use of direct quotation and dialogue carrier seen in the example above, other features include increased decontextualization (e.g., more formal introduction of characters and specifics of

the story with the assumption that the listener is not familiar with the people and incidences being discussed), use of past tense in contrast to present tense verbs, increased use of relative clauses and sequenced prepositional phrases, and an appropriate use of coordinating conjunctions. Some of these features are characteristic of many narrative forms--those that range from purely oral to those that are constructed in a more written-language-like context to those that are physically written down. However, an emergent reading is unique when contrasted with other narrative genres in that it discloses a non-conventionally reading child's version of reading and, as such, offers an opportunity to assess a child's early literacy development as well as his/her ability to create a specific narrative form.

With this in mind, analyses of the emergent reading elicitations of language impaired children can be helpful for two reasons. First, such an inquiry can provide information about the ability of children to differentially respond to changing narrative genres (Liles, 1993; Paul & Smith, 1993). Second, emergent literacy research suggests that children will vary in their internalization of written language features and that difficulty in the use of the literate register may have implications for the development of conventional reading (Cox, Fang, & Otto, 1997). Identification of such difficulties may inform understandings of relationships between language impairments and later reading disabilities.

The present study analyzes responses of children with and without language impairment to two narrative genres, oral narrative and emergent reading. Analyses compared macrostructural and microstructural variables produced in these two contexts and identified features providing insight into the language and emergent literacy development of children with language impairment. The first analysis focused on the actual production of these two genres. Subsequent analyses centered around two additional issues, context variation and group differences. In the analyses of context the authors examined linguistic variations in response to the contexts of oral narrative and emergent reading. The final analyses focused on group differences between the children with language impairment and those developing typically as they produced their narratives.

METHOD

Subjects

The data come from two groups of two- to four-year-old preschool children from the metropolitan area of a middle sized Midwestern city, ten children with SLI and ten children with typically developing language (TD). The children developing typically were matched to subjects in the SLI group by chronological age (+ 2 months) and sex. To begin examination of this new area with children for whom poverty and educational restraints were not issues, the authors solicited children from white middle- to upper-middle-income homes. Using the suggested weights and occupational scores of Hollingshead (1975), a general index of socioeconomic status was calculated for each group. Group means were similar (SLI, 55.7; TD, 55.3). Occupation scores reflected higher executives, major professionals (lawyers, engineers), administrators, health care workers, teachers, managers, and skilled manual workers. All twenty of the children in this study displayed normal hearing as determined by pure tone screening, evidenced normal oral structure and function, and scored 85 or above on the Arthur Adaptation of the Leiter International Performance Scale (1952). None of the children evidenced a neurological disorder or took medication for other neurologically based problems.

All but one of the children in the group with SLI had been previously identified as language impaired by a speech-language pathologist other than the current investigators; the one exception was a child referred by her mother. The diagnosis of SLI was confirmed by psychometric criteria as well as by using formal quantitative spontaneous language criteria (Dunn, Flax, Slivinski, 1996) (see Table 1). The children who were 3 years old and older (7 children) were evaluated using the Clinical Evaluation of Language Fundamentals-Preschool (CELF-P). Seven of these children had composite expressive language standard scores one and one-half standard deviations (SDs) below the mean. One child in this group had a composite expressive language score one SD below the mean but two subtest standard scores 2 SDs below the mean. The three children below age 3 obtained expressive language scores one and one half SDs below the mean (Verbal Ability Quotients) on the Preschool Language Scale (PLS). MLUs ranged from 1.07 to 3.99 (M=2.50, SD 1.016). Following a half-hour play interaction with the first author, 50 utterances from each subject

were transcribed and a SLI linear index score was computed using the child's age in months, mean length of utterance, and percentage of structural errors (Dunn et. al, 1996). All subjects with SLI obtained an index score of 0 or greater, the cut-off score for SLI. The children in this group ranged in age from 2:5 to 4:2 with a mean age of 3:3 (SD 7).

Insert Table 1 about here

The ten children with typically developing language were recruited from local preschools or parent groups. These children scored within or above one standard deviation for their age on the CELF-P "Quick Test" (Linguistic Concepts and Recalling Sentences in Context Subtests) or on the PLS (for the children below age 3) and obtained a SLI linear index score of less than 0 following analyses of their spontaneous language samples. The children were all considered to be typically developing by their parents and preschool teachers. These children ranged in age from 2:4 to 4:0 with a mean age of 3:3 (SD 6).

Procedures

Language Samples

The authors collected emergent reading and oral narrative language samples as part of a larger study comparing linguistic and behavioral variables occurring during home parent-child book reading as contrasted with parent-child toy play interactions (Kaderavek & Sulzby, in press; Sulzby & Kaderavek, 1996). The design required that each child interact with two books (an investigator-selected book that remained constant for all subjects and a mother-selected book) and two toys (one investigator-selected; one mother-selected) over the course of six home visits. The mother and child interacted with each toy and book on three occasions. During these parent-child interactions the investigator video and audio taped the interactions without interruption unless directly spoken to by the children or their parents. However, before and after the interactions the investigator took great care to develop an interactive relationship with each of the subjects and his/her mother. All the children appeared to grow increasingly comfortable with the investigator, viewed her as

a special friend, and seemed to look forward to this special playtime with their mother.

After the third parent-child interaction with each of the books the investigator asked the child to "read the book," consequently gathering two emergent readings for each subject, using standard techniques developed by Sulzby (1985a) and modified for this interactional setting. The child's most sophisticated example of an emergent reading was used for this analysis (i.e., the reading obtaining the highest category rating using Sulzby's Classification Scheme for Children's Emergent Reading of a Favorite Storybook [1985a]). If the child refused to attempt the emergent reading the investigator recorded this as well, including noting if the child participated in an interactive reading.

The investigator obtained the oral narratives during these home visits by engaging the child naturally and comfortably in conversation. The protocol developed by McCabe and Rollins (1994) was used to elicit the oral narratives: i.e., the investigator related a simple personal narrative and then asked an open-ended question, such as "Has anything like that ever happened to you?" Three standard prompts were used with all children. In response to this situation, children produced narratives about these and some volunteered narratives about other topics. Each child's most sophisticated example of an oral narrative (per McCabe and Rollin's classification system for oral narratives) was used for this analysis. If a child refused to attempt an oral narrative this was noted.

Transcription, Coding, and Reliability Procedures

The language samples were transcribed from audio tape according to the guidelines for Codes for Human Analysis of Transcripts (CHAT), part of the Child Language Data Exchange System (CHILDES) (MacWhinney, 1991), parsed at the utterance level. Utterances were then divided into clauses, which in this case was defined as "units of meaning that are more or less tied to distinct verbs" (Wolf, Moreton, and Camp, 1994, p. 297). In some cases, an utterance comprises multiple clauses; other utterances such as fillers (um's, uh's, etc.) and other non-verb governed phrases were not counted as clauses.

The transcripts were completed by the first author who had been present during all home visits and was familiar with the children's speech patterns and then completely checked by the first author a second time. The transcripts (with

their potential for bias) were then given to a research assistant trained in the transcription process but unfamiliar with the details of this study. The assistant was told that the transcripts would contain errors and was encouraged to be as critical as possible in verifying the dialogue on a word-by-word basis. The number of word agreements divided by the total number of opportunities for agreement resulted in an inter judge reliability of 97%. Any disagreements were resolved by discussion.

After being transcribed and checked, the coding was completed by a third pass through the audio taped narratives by the first author. Codes were entered on the computer directly below each utterance line per CHAT procedures. Twenty-six of the transcripts (87%) were checked on a line-by-line basis for coding accuracy by the research assistant who was unaware of any hypotheses being tested with these data. All disagreements were discussed and resolved. Four of the transcripts (13%) were independently coded by the first author and the research assistant. Inter rater reliability was achieved at 90%.

Transcript Analyses

Length and Complexity

Mean length of utterance (MLU), number of clauses, number of utterances, and type-token ratio was computed with the Computerized Language Analysis (CLAN) system of CHILDES. Utterances composed of interactional words (e.g., yeh, uh-huh) were not coded as clauses (clauses in this case being linked to meaningful verbs or intended verbs, e.g., "Daddy outside") resulting in the outcome that some children had more utterances than clauses. Because the emergent readings were generally longer than the oral narratives and to avoid inflation of the proportion, the type token ratio was corrected to match for length between the two narrative forms.

Codes

Number of codes per transcripts was computed using the frequency (FREQ) program of CLAN. The following coding categories were used to identify linguistic and/or narrative features potentially differentiating the two narrative forms; (a) story structure, (b) character/object identification, (c) verb tense usage, (d) use of "reported speech", (e) use of connectors.

Story structure. The overarching structure of the narrative is a fundamental feature differentiating the narrative genre from conversational exchanges. Different models of story grammar analysis have been proposed (for example, Applebee, 1978; Stein & Glenn, 1979). Because of the young age of the children and the simplicity of most of the obtained narratives in the study a "proto-story grammar" coding system was adapted from McCabe's and Rollins' (1994) narrative analysis. The child's attempt to "set the scene" by introduction of character and identification of some initiating action was coded as BEGINNING. The introduction of a complication or extension of the characters' actions was coded as MIDDLE. The resolution of the situation was coded as END. To receive an END coding the child had to say more than just "the end"--a code was given only if the action was resolved in some way or (in the case of the emergent reading) the child's conclusion reflected the way in which the story was resolved. This was an intentionally lenient story grammar analysis devised to give the children any possible credit for an oral narrative or emergent reading displaying even a rudimentary story structure. Even though both oral narratives and emergent readings can contain features of story grammar, more were expected in the emergent readings due to the influence of the repeated exposures to the storybooks.

Character introduction/pronouns. Several features regarding reference to story characters and objects have been identified as differentiating children's production of more decontextualized language, an important aspect of written language. These features include the specific introduction of new characters or objects (Chafe, 1982, 1985; Ochs, 1979; Sulzby & Zecker, 1991) and the cohesive use of third- person pronouns to refer to previously introduced characters (Liles, 1985; Norris & Bruning, 1988). Because the storybooks used in this study were written from the third person perspective and the oral narratives were prompted from first person perspective, first person pronouns were expected to occur more frequently in the oral narratives.

For this investigation, each decontextualized noun was coded as CHARACTER-INTRODUCTION when it was used appropriately (i.e., it helped the listener understand who or what was being referenced). In the case of children who repetitively labeled nouns in their emergent reading, only the first reference was counted; subsequent reference to an already introduced person or noun was counted as CHARACTER-OVER SPECIFIED. Personal pronouns were coded as PRONOUN-FIRST PERSON. Third person pronoun usage that

referred back to introduced characters/nouns was coded as PRONOUN-THIRD PERSON; unclear pronoun use (no specified referent) was coded as PRONOUN-INCORRECT.

Verb tense. Ochs (1979) suggested that present tense verbs are more characteristic of oral or unplanned discourse as compared to past tense verb use that is more likely to occur in planned or written discourse. To index verb tense use in this study the authors used the coding system of Wolf, Moreton, & Camp (1994), coding VERBS-PRESENT TENSE (which included concurrent, habitual, or generic action), VERBS-PAST TENSE and VERBS-FUTURE TENSE.

Past tense verbs are, of course, typically taken as a sign of an awareness of appropriate reporting of events that have occurred in the past. In general, they tend to be viewed as expected in children's oral narratives as children grow older and more proficient with recounting events (McCabe & Peterson, 1991) and emergent readings (Sulzby, 1985a). Sulzby's scheme shows past tense occurring in the higher levels of the classification system in which the child's speech is judged to be "written language like." However, experienced storytellers and writers can vary in how they set the stage and report events such that present tense might be an appropriate predominant form. For these stories, the authors expected past tense as a sign of maturity and more sophisticated language development and present tense as a sign of less well developed language.

Reported speech. The code, REPORTED SPEECH, was created to index features of reported speech in these narratives (Ely & McCabe, 1993). REPORTED SPEECH was coded whenever dialogue carriers ("he said," "said Mother") were used to provide contextualization or when the child used direct quotation to represent what was said ("I will eat you up") in contrast to an indirect report (e.g., "she would eat him up"). Emergent literacy research has indicated that a child's use of dialogue carriers and direct quotation in an emergent reading can reflect internalization of key features of the written text (Sulzby, 1985a; Sulzby & Zecker, 1991). Children were expected to use more directly reported speech in the readings and less in the oral narratives, partly due to the modeling in the storybooks.

Connectors. Initial coordinating conjunctions have been hypothesized to occur more frequently as a sign of discourse fragmentation more typically found in oral rather than written language (Sulzby & Zecker, 1991). Others, however,

have proposed that sometimes initial coordinating conjunctions can be used as connectors to increase cohesiveness between utterances (Gillam & Johnston, 1992), a characteristic one can hypothesize is more likely to occur in formal or written-like language. In either case, comparing the occurrence of initial position connectors, coded as CONNECTORS, had the potential of differentiating the two narrative genres. The only initial coordinating conjunctions found in these samples were "and," "but," and "then," which tend to be associated with oral accounts.

RESULTS

Transcript sets were reviewed for all 20 children to determine which children gave even a minimal response to the elicitations for oral narratives and emergent readings. From those, there were fifteen samples of oral narratives (10 samples from the group with TD; 5 samples from the group with SLI). A slightly different set of fifteen children produced emergent readings (9 samples/TD; 6 samples/SLI). Thus, five children with SLI did not respond to invitations to produce an oral narrative; five children (1 TD and 4 SLI) did not attempt the emergent reading task. One child with SLI gave an oral narrative of one word and one child developing typically gave an emergent reading of only one clause. The first set of analyses includes these children in the language analysis to be conservative; data were then reanalyzed dropping these two children from the sample and a summary of the data without these two minimal attempts is presented when the results were influenced by this recomputation (four points of difference were observed).

Coding data were analyzed using proportions [code occurrence/number of clauses produced by subject] with arc sine transformations to correct for percentage data. A minimum alpha level of .05 was used for all statistical tests. Wilcoxon Matched Pairs Sign-Ranks Test was used to interpret differences between the oral narrative and emergent reading contexts (see Table 2). The Mann-Whitney U statistic was calculated to investigate differences between the two groups of children (SLI versus TD) (see Table 3).

TABLE 2 ABOUT HERE

Length and Complexity

The first set of comparisons examined the mean length of utterance within the two contexts, the number of overall clauses and utterances, the lexical diversity as measured by the type/token ration (TTR). As was to be expected given the availability of pictures and prior exposure to the story, the emergent reading narratives were longer than the oral narratives. The children produced significantly more clauses ($z = -3.179$; $p < .01$) in the emergent readings ($M = 25.1$) than they did in the oral narratives ($M = 6.33$). The children also produced more utterances within the emergent reading narratives ($M = 25.3$) than they did in the oral narratives ($M = 6.93$) ($z = -3.059$, $p < .01$). When comparing the two contexts, the children demonstrated greater lexical diversity within the emergent reading context ($M = .72$) then in the oral narratives ($M = .65$) as measured by TTR. These differences were statistically significant ($z = -2.118$; $p < .05$) and are shown in Table 2.

In the comparison of the children by group (SLI versus TD), as expected, children with TD language produced longer utterances ($M = 6.56$) as compared to the children with SLI ($M = 3.54$) during their oral narratives ($U = 7.5$, $p < .05$) and in their emergent reading elicitations ([TD; $M = 6.30$] [SLI; $M = 3.4$], [$U = 6.0$, $p < .01$]). When the two minimal narratives (one emergent reading and one oral narrative) were removed, the statistically significant difference in MLU was maintained for the emergent reading but was reduced to a level of .05 ($p < .05$); the statistical level of significance in MLU for the oral narrative was not maintained ($p > .05$). Both of these sets of data are demonstrated in Table 3.

TABLE 3 ABOUT HERE

Codes

Story Structure

The children demonstrated statistically significant differences in their use of two of the proto-story grammar features when comparing the two contexts as shown in Table 2. The middle part of the story was marked significantly more often within the oral narratives ($M = 13\%$) as compared to its occurrence in the emergent readings ($M = 2\%$) [arc sine transformed ($z = -3.109$; $p < .01$]. The

end of the story was also more frequently marked in the oral narratives (M = 6%) as contrasted to its occurrence in the emergent readings (M = 1%) [arc sine transformed ($z = -2.3102$; $p < .05$)]. There were no differences between contexts for indicating the beginning of the story.

The two groups of children (TD versus SLI) did not differ significantly for either marking the middle or end of the story structure. Given that there was some differentiation at the level of story structure, the authors then looked at internal characteristics of story features, such as character introduction and referencing, verb tense, reported speech and use of initial coordinating conjunctions.

Character Introduction/Pronouns

As a measure of the children's use of decontextualization the authors coded several aspects of character introduction and pronoun usage. As shown in Table 2, with all narratives included there were no significant differences in the introduction of characters or in the use of first or third person pronouns between oral narratives and emergent readings. When the two minimal attempts at narrative were removed from the data pool, there was a significant difference in the use of first person pronouns (arc sine transformed, $z = -2.1004$, $p < .05$) with usage of first person pronouns being greater in the oral narratives (M = 61%) as contrasted with usage in the emergent readings (M = 3%).

When comparing the children with SLI and those who were TD and when all the narratives were analyzed (including the two rudimentary narratives), the children with TD language used more first person pronouns (M = 77%) than did the children with SLI (M = 29%) during their oral narrative productions [arc sine transformed ($U = 4.0$, $p < .05$)]. When the two rudimentary narratives were removed, the comparison of first person pronouns in the oral narratives did not produce a statistically significant difference ($p > .05$).

The children with SLI produced significantly more occurrences of the CHARACTER-OVER SPECIFIED code (M = 24%) during their emergent readings as compared to the children with TD language (M = 0%), which documented their repetitive labeling of already-introduced characters [arc sine transformed ($U = 9.0$, $p < .01$)]. During oral narratives this group contrast was not significantly different.

Verb Tense

There were no significant differences between contexts for verb tense usage. The group with TD language used significantly more past tense verbs in both the oral narratives (M = 79%) [arc sine transformed (U = 6.5, $p < .05$)] and in emergent readings (M = 47%) [arc sine transformed (U = 7.5, $p < .05$)] as compared to the children with SLI (M = 17%; M = 8%, respectively). No differences appeared in the occurrence of present tense or future tense verbs.

Reported Speech

As expected, children demonstrated a greater use of reported speech (use of dialogue carriers and direct quotation) as part of their emergent reading productions (M = 15%) in contrast to the absence of use of reported speech in oral narratives (M = 0%). These differences were statistically significant [arc sine transformed ($z = -2.366$; $p < .05$)].

In the group comparison, and when considering all narratives that were produced, there were no significant differences between the children with SLI and the children with normal language in their use of reported speech (U = 9, $p > .05$). When the two minimal attempts at narratives were removed, a statistically significant difference emerged for the use of reported speech with the children developing typically using this form of decontextualization more frequently (M = 25%) as contrasted with the children who were SLI (M = 4%) [(U = 9, $p < .05$). Since the use of reported speech was seen as important by the authors, particularly for this kind of text, the authors completed a sub analysis of this feature.

Children with TD language used dialogue carriers and direct quotations at a level of 22% in their emergent readings, but did not demonstrate use of these features in their oral narratives. Six of the nine children with TD language used dialogue carriers and direct quotations during their emergent readings. The children with specific language impairment demonstrated use reported speech at a level of 4% in their emergent readings, with no demonstration of these features during their oral narratives. Two of the six children with SLI used direct quotations and dialogue carriers during their emergent readings.

Connectors

Comparison in the use of initial coordinating conjunctions in the two contexts did not reveal a statistically significant difference. However, initial coordinating conjunctions were used more frequently within the oral narrative context (M = 45%) as contrasted with the use of this linguistic form during emergent readings (M = 19%).

There was a significant group difference ($p < .05$) in the use of CONNECTORS with the children developing typically using connectors more frequently during emergent reading narratives (28%) as contrasted with the children with SLI (6%). There was not a statistical difference between groups in their use of initial coordinating conjunctions during the oral narratives, but the trend was for the children developing typically to use this form more frequently (M = 53%) than did the children with SLI (M = 28%) ($U = 14$, $p > .05$).

DISCUSSION

Productions of Oral Narratives and Emergent Readings

The first finding of note is that both sets of children produced both oral narratives and emergent book readings. There were differences in the age at which oral narratives occurred for the two sets of children, with children developing typically producing scorable oral narratives as young as 2-4; the youngest child with SLI producing an oral narrative was 3-1. The sample size is, of course, small, but the oral narratives were elicited in the children's homes over a period of six-seven visits with a researcher with experience with young children. These results agree with other reports (Liles, 1993) about the production difficulty of children with SLI in formulating oral narratives and complex connected discourse.

This study illustrates that children with SLI can produce connected discourse within a more written-language environment, the emergent reading. In contrast to the oral narrative, the youngest child with SLI produced two scorable emergent readings and the youngest child developing typically refused both emergent readings. The other children with SLI who gave emergent readings were among the youngest in the sample (3-1, 3-2, 3-7) which leads to the conclusion that producing narratives having features of

written language is within the reach of at least some children with SLI and that repeated maternal readings provides a facilitative scaffolding for the production of connected discourse for these children. This is in spite of the fact that the storybook reading context did not appear to be as supportive to verbal interaction for many of the children with SLI as did toy play (Kaderavek & Sulzby, 1998b).

Context Differences: Sensitivity to Register Differences

The second important finding is that very young children, even those with specific language impairment, showed some sensitivity to register differences involving features of oral and written language. The data suggest that the preschool children in this study differentiated the contextual demands of two narrative genres, emergent readings and oral narratives. Emergent readings were longer (both clause and utterance level) than oral narratives. They were also more lexically rich as measured by TTR. There has been a consistent report (Ninio, 1983; Ninio & Brunner, 1978; Snow, Dubber, & De Blauw, 1982; Snow & Goldfield, 1983) of the contribution of storybook reading to infants' and toddlers' vocabulary acquisition. These data appear to suggest a demonstration of how exposure to books influences rehearsals of more diverse words.

Storybook reading has also been reported as a means of modeling greater syntactic complexity for children. In this study there were no differences in MLU, the measure that would have tapped syntactic differences. Unfortunately, the brevity of the oral narratives precluded the use of other syntactic measures (e.g., Lee, 1974; Scarborough, 1990).

The significant increase in the number of utterances seen during the emergent reading in this study is consistent with other findings. In other studies children produced longer narratives in a story retelling task when comparing story retelling and story generation (Merritt & Liles, 1987; Rippoch & Griffith, 1988). Story retelling was the more "scaffolded" task, as was emergent reading in this study. It appears that the three parent-child storybook interactions that preceded each emergent reading exposed the children to the vocabulary, syntax constructions, and event relationships of the text, and, subsequently, the children demonstrated the benefit of this exposure in their lexical diversity and discourse length.

While children did not appear to demonstrate increased syntactic complexity, they did say more about the story line, as shown in number of utterances/clauses during emergent readings. The length of the emergent reading appears to be influenced by the children's repeated exposures to the text and the availability of the book and its pictures as prompts. Children tended to treat the pictures as cues even though most of these children were not yet at the level of Sulzby's more advanced categories of emergent book reading where speech is produced for all or most pages.

The longer length of the emergent reading productions found in this study contrast with other findings involving written/oral register variation. Storybook reading provides a model of elaborated connected discourse. When Sulzby (1985b) used prompts that called for unmodeled story generation contrasting an oral and written model with five-year-old children, she found the length variable favored the oral mode. Children's orally told stories were longer than their story dictations to a scribe, and both were longer than children's rereadings of their own emergent writing forms. It should be noted that the child's rereadings of their story were taken as a measure of length rather than the actual written forms. This was done because many of the children's written productions included preconventional writing forms such as scribble, drawings, and nonphonetic letter strings. Sulzby's study and the data from the current study together appear to indicate that it was not the written mode per se but the form of the written context that affected length.

Reported speech reflecting the written language register was produced in the emergent readings; in contrast, it was not produced at all in the oral narratives. This finding was particularly interesting in that Ely and McCabe (1993) reported that at age 4 only 25% (4/16) of the 4 year olds they studied used any "reported speech" in oral narratives. Reported speech in Ely and McCabe's sense referred to all means of conveying another person's speech, some of which are more typically found in oral narratives. For example, indirect quotation and narrated speech such as "We was arguing a lot," are common in oral narratives. Sulzby's (1985a; Sulzby & Zecker, 1991) research in emergent storybook reading has located the use of direct quotation and dialogue carriers in more advanced emergent readings typically from older children. Both Sulzby's previous study and this study indicate that this usage can be stimulated in response to a variety of books since in both studies more than one book was used.

These findings, although with a small sample, are the first direct comparison of the occurrence of dialogue carriers and direct quotations across oral and written contexts with children this young. The finding that approximately 1/3 of the children used dialogue carriers and direct quotation in their emergent readings--even in this group where all the children (except for 2) were below age 4--suggests exposure to dialogue in storybooks may be a context facilitating early comprehension and use of reported speech.

While the preceding differences favored the emergent reading context, some linguistic features were found more frequently in the oral narratives. One which would be totally expected was the more frequent occurrence of first person pronouns in the oral narratives (in the recalculated data after removing the two minimal narratives). This result can be explained in that the oral narrative was elicited in a context favoring the use of the first person pronoun, such as using the question, "Did anything like that ever happen to you?", and the use of the investigator's modeled personal narratives. The books, on the other hand, were about other characters told in third person.

More important to the distinctions between oral and written contexts, however, were the findings about features of story grammar. Even though the researcher-provided books and most of the self-selected books were organized around full blown "story grammar" features (i.e., Stein & Glenn, 1979), these young children used markings of proto-story features more frequently in their oral narratives. Specifically, they marked the middle (complicating condition) and end (conclusion) of the story more frequently during oral narratives. While these categories are simple, the coding system required that children produce some elaboration about these story parts (for instance, "the end" would not be scored as marked but there had to be an expression of some degree of resolution). For these young children, there was an indication that they were attentive to the requirement of an expression of narrative function and actually marked it in their oral narrative speech to a greater extent than they did in emergent reading speech about a well formed story. This finding supports the position that oral and literacy events are reciprocally significant factors in the development of children's narrative skill and literacy development (Fey, Catts & Larrivee, 1995). It is also consistent with the position of some emergent literacy researchers (Teale & Sulzby, 1986; Sulzby, 1996) that oral and written language develop concurrently and interrelatedly.

The more frequent demonstration of the proto-story grammar in the oral mode contrasts with the fact that the children's emergent readings were longer. Children achieved this by saying more in the storybook readings but not tying that speech together in a cause-effect or problem-solution structure. Children were able to avoid mentioning an initiating event or a problem-solution structure by using what Sulzby (1985a) calls a "labeling and commenting" or "following the action" structure of reading. Here the child simply comments on the page and/or picture in view but does not mark a relationship among events in the story. Hence, the child can "say more" without marking the proto story grammar function.

Group Differences

The most significant finding of the group comparisons was that the children with SLI in this study demonstrated reduced ability to produce the linguistic features characteristic of written language, i.e. reported speech, when the two rudimentary narratives were removed from the data sample. This is in spite of the fact that reported speech could be demonstrated without using longer sentences and/or more sophisticated syntax, and was within the repertoire of 2 of the children with SLI. This deficit may be one factor impacting the reading development of children who are SLI. To become a proficient reader children need to be able to use a number of language skills inter connectedly--for example, phonemic knowledge, letter awareness, and sight word knowledge. Comprehension strategies, aided by the internalization of linguistic features characteristic of written text, are another fundamental skill facilitating the decoding process. Thus the decreased ability to demonstrate written language features shown by the children in this study may be one factor contributing to potential reading difficulties and may be evidence of deficits in higher order language abilities.

The linguistic differences that could be predicted by known differences in syntax and morphology in children with SLI were evidenced in addition to the difficulties with written language noted above. The findings of this study that demonstrated lower MLU and less frequent use of past tense verbs in both contexts, and less frequent use of first person pronouns in the oral context substantiates findings of others indicating that children with SLI demonstrate difficulties in syntax and morphology within narrative production (Paul & Smith, 1993).

It is significant, however, that in spite of their impaired use of pronoun forms, children with SLI demonstrated awareness for aspects of decontextualization during their emergent readings. The increased use of over-specificity of character reference indicated that although they were less able to employ pronouns to refer back to already-specified characters, these children with SLI used the characters' names repeatedly to maintain referential clarity. That this significant difference in over-specificity occurred significantly more only in the emergent reading and not during oral narrative production suggests that the children with SLI were sensitive to the higher demand for decontextualization within the emergent reading.

Connectors present an interesting set of findings. While the context comparison did not reach significance, children nevertheless used the connectors, which in this study were all initial coordinating conjunctions, much more frequently in the oral narratives whereas they might be expected more in the emergent readings. Group contrasts show that the children with SLI used them less than children developing typically in both contexts, but only significantly differently in emergent readings. Initial coordinating conjunctions appear to be a temporary form of cohesion used by most young children who are developing typically (see Sulzby & Zecker, 1991). Later, children who are TD appear to drop the initial coordinating conjunctions, especially in the written register. The children with SLI, in contrast, do not appear to use the cohesive device as much as children developing typically, but it is within their repertoire as shown in the oral narratives where their level of use is as high as the children developing typically in the emergent readings. The children developing typically, on the other hand, decrease their use of initial coordinating conjunctions from oral narrative to emergent readings; a trend consistent with prior emergent literacy research.

In summary, it appears that emergent reading narratives may be a task measuring a child's internalization of features of the text and a task eliciting slightly different parameters than oral narratives. The emergent literacy elicitation may be a useful additional language sampling protocol since research has already demonstrated the relevance of emergent reading elicitations in assessing a child's developing understanding of written language and as a task developmentally tied to conventional reading development (Sulzby, 1996). It also appears, from the current data, to be a task which can

highlight a child's ability to use written language features, a higher-order language skill.

The consequences of direct speech-language intervention with storybook reading protocols need to be investigated more systematically (see Edwards, 1989; Whitehurst et al., 1994, for examples of parent intervention studies). However, in general terms, emergent literacy research and current speech-language pathology clinical practice would suggest that interventions could include assessing parent-child storybook reading practices (Kaderavek & Sulzby, 1998a), by intervening and consulting with parents when storybook interactions do not seem to be enjoyed by young children (Kaderavek & Sulzby, 1998b), and by maximizing opportunities to use storybooks during clinical treatment and in preschool classrooms (Fey, Catts, & Larrivee, 1995). Emergent reading elicitation protocols could be used to monitor the child's movement from oral to written language conventions (Sulzby, 1985a) and would also provide an opportunity for children to produce narratives in a more supported context. This type of measure complements existing measures, including assessments of phonemic awareness (see Snow, Burns, & Griffin, 1998).

Several cautions to these interpretations are in order. First, over generalization should be avoided since the sample size of these groups were small, and only one narrative from each genre was used for analysis. Second, these data were not elicited in a laboratory setting. In one respect, naturalistic experimental designs are an important component aiding understandings of language/literacy development. However one sacrifices control over all experimental variables in order to optimize ecological validity--thus, the data should be viewed accordingly. Finally, one must avoid assuming that all the children with language impairment or delay will go on to experience difficulty in later narrative performance or with their reading development (Paul, Hernandez, Taylor, & Johnson, 1996). However, with these cautions in mind, the authors suggest that these data highlight differences in children's linguistic performances in contrasting narrative genres. Further, they elaborate a broader dimension of higher-order literacy/language interrelationships potentially impacting literacy development in children with language impairment.

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Table 1. Characteristics of the subjects with specific language impairment (S) and typically developing language (T)

Subject Number	Age	Sex	SLI Linear Index Score[a]	MLU[b]	Receptive[c] Scores	Expressive[d] Scores	Narratives Completed[e]
S1	3:6	M	8.41	1.76	85	50	-
S2	3:4	M	10.83	1.07	96	50	-
S3	4:1	M	7.58	2.54	118	77	O,E
S4	4:2	M	9.15	3.95	81	71	E
S5	2:5	F	4.66	2.43	93*	73*	E
S6	3:1	M	2.55	2.43	91	65	O,E
S7	3:7	M	5.99	3.99	87	84[f]	O,E
S8	2:5	F	5.07	2.67	124*	77*[g]	-
S9	2:11	F	2.66	1.08	69*	56*	-
S10	3:2	F	7.68	3.07	91	75	O,E
T1	3:5	M	-2.63	4.40	WNL[h]	WNL	O,E
T2	3:7	M	-2.16	3.84	WNL	WNL	O,E
T3	3:6	M	-0.47	4.41	WNL	WNL	O,E
T4	3:11	M	-1.58	5.35	WNL	WNL	O,E
T5	4:0	M	-1.05	5.39	WNL	WNL	O,E
T6	3:1	M	-2.15	4.26	WNL	WNL	O,E
T7	2:7	F	-1.40	2.32	WNL	WNL	O,E
T8	3:0	F	-3.67	3.87	WNL	WNL	O,E
T9	2:4	F	-2.06	2.20	WNL	WNL	O
T10	3:3	F	-3.53	3.61	WNL	WNL	O

a = SLI linear index score computed from a child's age, MLU, and percent structural errors (Dunn, Flax, Silwinski, & Aram, 1996); b = Mean length of utterance (MLU) as determined by a 30-minute language sample of subject during toy play with mother; c = Standard scores were obtained from the receptive portions of the CELF-Preschool (Wiig, Secord, & Semel, 1992) or reflect Auditory Comprehension Quotient on the Preschool Language Scale-Revised (Zimmerman, Steiner & Pond, 1979) (indicated by *) ; d = Standard scores were obtained from the expressive portions of the CELF-Preschool (Wiig, Secord, & Semel, 1992) or reflect Verbal Ability Quotient on the Preschool Language Scale-Revised (Zimmerman, Steiner & Pond, 1979) (indicated by *) ; e=subject completed an oral narrative (O) and/or an emergent reading (E); f=this subject had 2 expressive subtest scores 2 standard deviations below the mean; g=all subjects except this subject had been identified as language impaired by a speech-language pathologist prior to the study, this subject was self-referred by the subject's mother; h=WNL (within normal limits), subjects passed the screening subtests of the CELF-P

Table 2. Mean, standard deviations (SD) and z scores (Wilcoxon Signed Rank Test) for linguistic analyses contrasting emergent readings and oral narrative productions

Variable	Oral Narrative Mean (SD)	Emergent Reading Mean (SD)	Z scores
MLU	5.55 (2.46)	5.13 (2.92)	-.734
# of clauses	6.33 (3.90)	25.1 (18.64)	-3.179**
# of utterances	6.93 (4.77)	25.3 (11.36)	-3.059**
Type/token ratio	.65 (.15)	.72 (.16)	-2.118*
(below are percentage data [arcsine transformed])			
BEGINNING (story structure)	.10 (.11)	.04 (.04)	-1.511
MIDDLE (story structure)	.13 (.10)	.02 (.02)	-3.109**
END (story structure)	.06 (.08)	.01 (.02)	-2.310*
CHAR. INTRODUCTION	.71 (.57)	.53 (.27)	-.4707
CHAR. OVER-SPECIFIED	.04 (.08)	.10 (.24)	-.1348
PRONOUN (FIRST)	.55 (.50)	.06 (.12)	-1.836
PRONOUN (FIRST)	**.61 (.49)**	**.03(.05)**	**-2.1004***
PRONOUN (THIRD)	.28 (.43)	.45 (.36)	-.7645
PRONOUN (INCORRECT)	.10 (.23)	.15 (.27)	-.0
VERB (PRESENT TENSE)	.36 (.51)	.33 (.21)	-.175
VERB (PAST TENSE)	.58 (.55)	.31 (.29)	-1.511
VERB (FUTURE TENSE)	.00 (.00)	.01 (.02)	-1.604
REPORTED SPEECH	.00 (.00)	.15 (.19)	-2.366*
CONNECTORS	.45 (.40)	.19 (.21)	-1.852

* $p \leq .05$ ** $p \leq .01$

Bolded text reports recalculated data when two rudimentary narratives (one oral narrative of one word and one emergent reading of one clause) were removed from data pool. Significance levels of all other linguistic features remained consistent regardless of whether or not the rudimentary narratives were included.

Table 3. Means, standard deviations (SD), and U scores (Mann-Whitney U) comparing linguistic measures during narratives of children with specific language impairment (SLI) and those who are typically developing (TD)

Context	Oral Narrative			Emergent Reading		
Group	SLI	TD	U Score	SLI	TD	U Score
MLU	3.5 (2.2)	6.6 (1.9)	U=7.5*	3.4(.46)	6.30 (3.3)	U=6**
MLU	**4.2(1.9)**	**6.6(2.0)**	**U-7.5**	**3.4(.46)**	**6.5(3.4)**	**U=6***
# of clauses	6.0 (3.8)	6.5 (4.1)	U=23	22.2 (12.75)	27.1 (22.3)	U=23
# of utterances	7.2 (6.0)	6.8 (4.4)	U=23	27.2 (11.63)	24.1 (11.7)	U=24
Type/token ratio	.7(.2)	.6 (.1)	U=19.5	.6(.12)	.8 (.15)	U=6
(below are percentage data [arcsine transformed])						
BEGINNING (story structure)	.05 (.06)	.12 (.12)	U=16	.03 (.03)	.04 (.04)	U=24
MIDDLE (story structure)	.14 (.12)	.13 (.09)	U=24	.01 (.01)	03 (.02)	U=19
END (story structure)	.05 (.06)	.06 (.08)	U=23	.01 (.01)	02 (.02)	U=18.5
CHAR. INTRODUCTION	.60 (.60)	.76 (.59)	U=18.5	.42 (.11)	.59 (.33)	U=16
CHAR. OVER-SPECIFIED	.08 (.11)	.02 (.06)	U=17.5	.24 (.35)	.00 (.00)	U=9**
PRONOUN (FIRST)	.29 (.40)	.77 (.50)	U=4*	.05 (.06)	.07 (.16)	U=23
PRONOUN (FIRST)	**.36(.42)**	**.77(.50)**	**U=4**	**.05(.06)**	**.02(.04)**	**U=17**
PRONOUN (THIRD)	.27 (.34)	.29 (.49)	U=24	.32 (.37)	.57 (.33)	U=13.5
PRONOUN (INCORRECT)	.25 (.35)	.02 (.07)	U=16.5	.20 (.39)	.11 (.17)	U=26
VERB (PRESENT TENSE)	.45 (.45)	.32 (.55)	U=20.5	.37 (.27)	.31 (.17)	U=25
VERB (PAST TENSE)	.17 (.32)	.79 (.54)	U=6.5*	.08 (.07)	.47 (.28)	U=7.5*
VERB (FUTURE TENSE)	.00 (.00)	.00 (.00)	U=25	.00 (.00)	.02 (.03)	U=18
REPORTED SPEECH	.00 (.00)	.00 (.00)	U=25	.04 (.07)	.22 (.21)	U=13
REPORTED SPEECH	**.00(.00)**	**.00(.00)**	**U=20**	**.04(.07)**	**.25(.21)**	**U=9***
CONNECTORS	.28 (.35)	.53 (.42)	U=14	.06 (.12)	.28 (.22)	U=11*

ON = Oral Narrative ER= Emergent Reading * $p \leq .05$ ** $p \leq .01$

Bolded text reports recalculated data when two rudimentary narratives (one oral narrative of one word and one emergent reading of one clause) were removed from data pool. Significance levels of all other linguistic features remained consistent regardless of whether or not the rudimentary narratives were included.